

# *Department of the Navy Chief Information Officer*



## *Interoperability...NMCI and Beyond*

*May 31, 2001*

*Presented by*

*Mr. Ron Turner, Deputy Chief Information Officer of the  
Department of the Navy*

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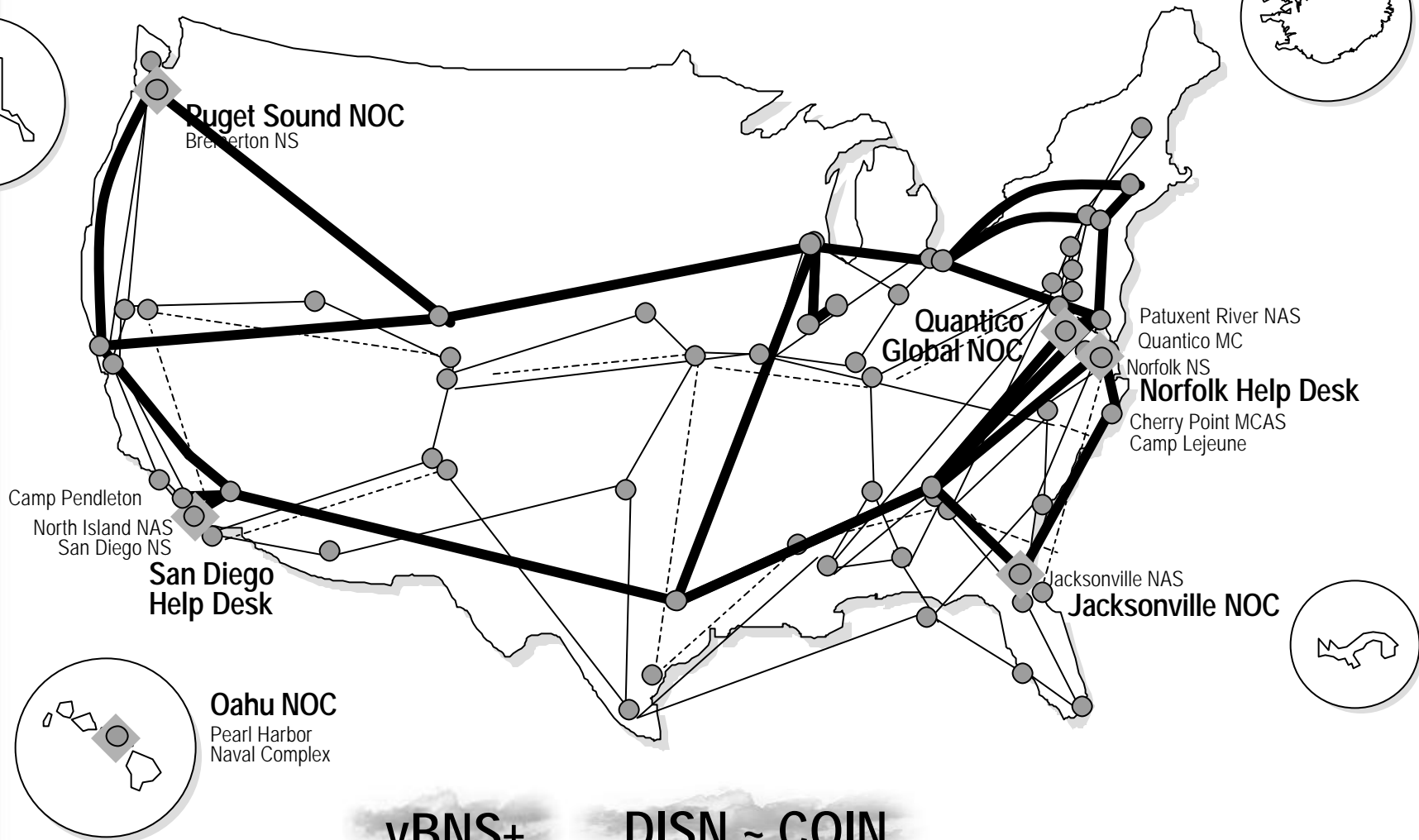
# *Background*

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- \$90 billion organization
- Employing about 900,000 people
- On any given day ~ over a hundred ships forward deployed.
- At any given moment ~ 88,000 sailors and Marines outside of CONUS.
- Keeping that organization connected is a critical proposition as we move into the 21<sup>st</sup> Century.



# NMCI Network Snap Shot

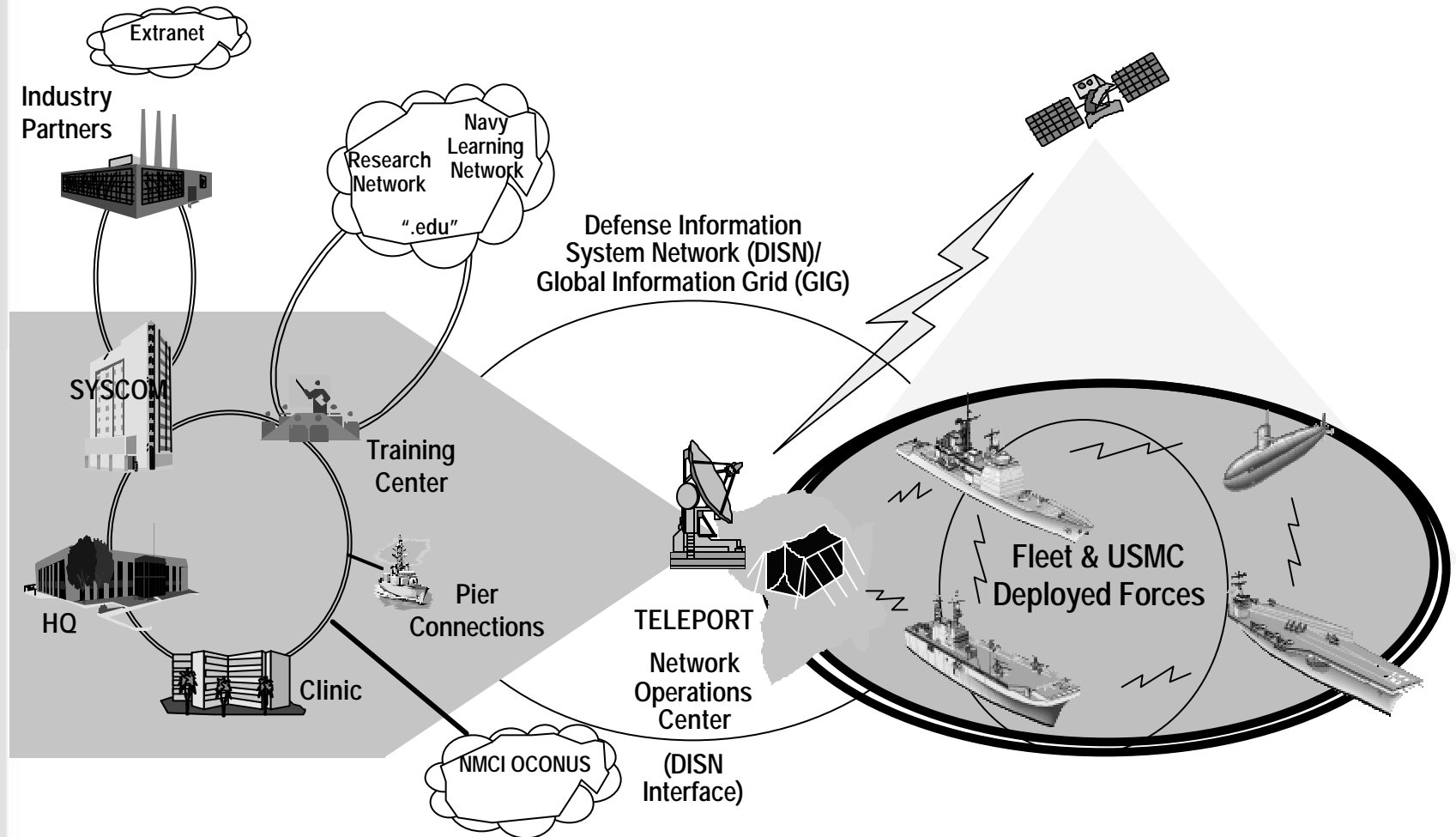


vBNS+

DISN ~ COIN

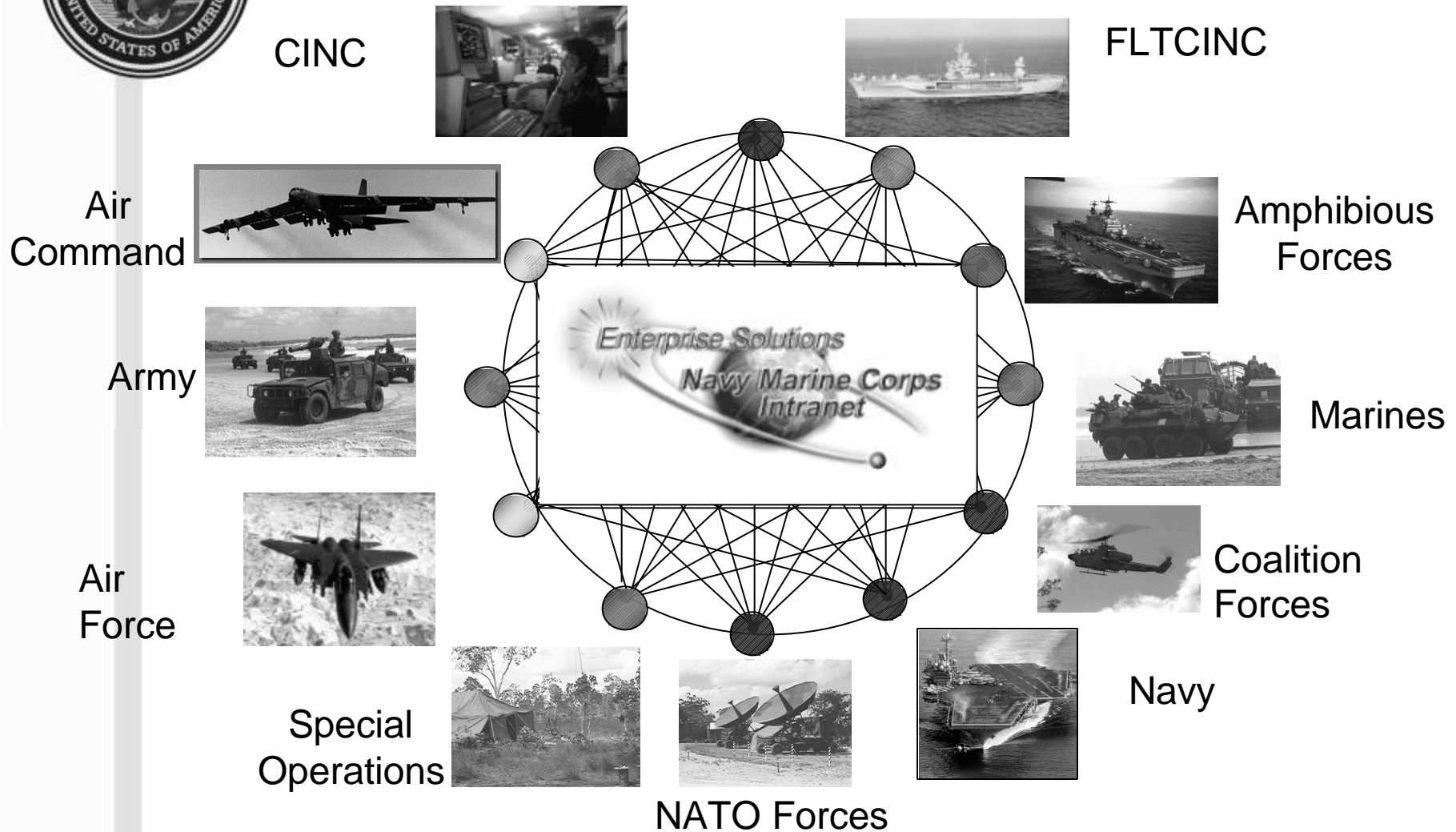


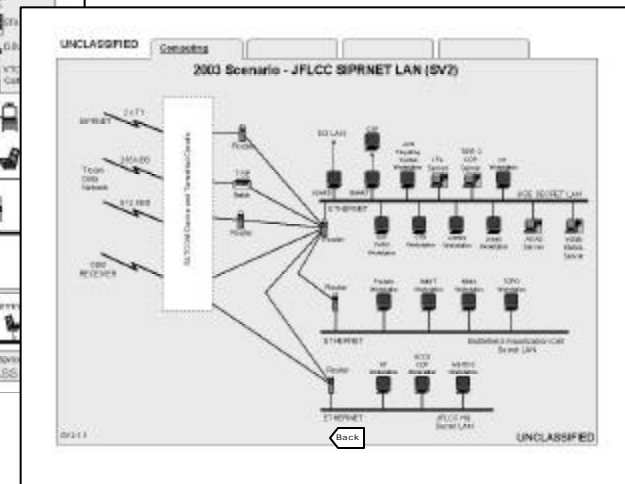
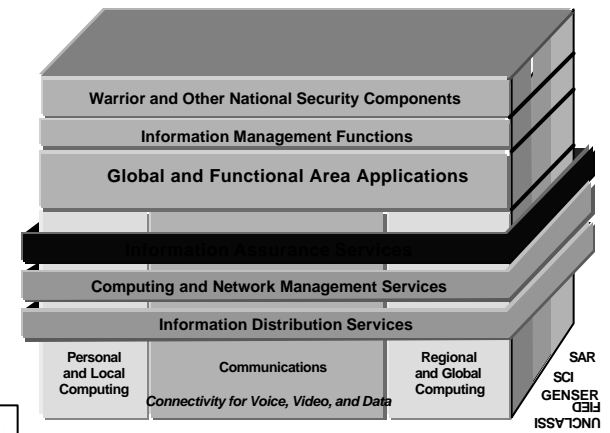
# NMCI, IT-21 & MCTDN





# *Integration of NMCI & GIG*





*GIG will require us to develop OVs & SVs*



# *DON CIO General Responsibilities*

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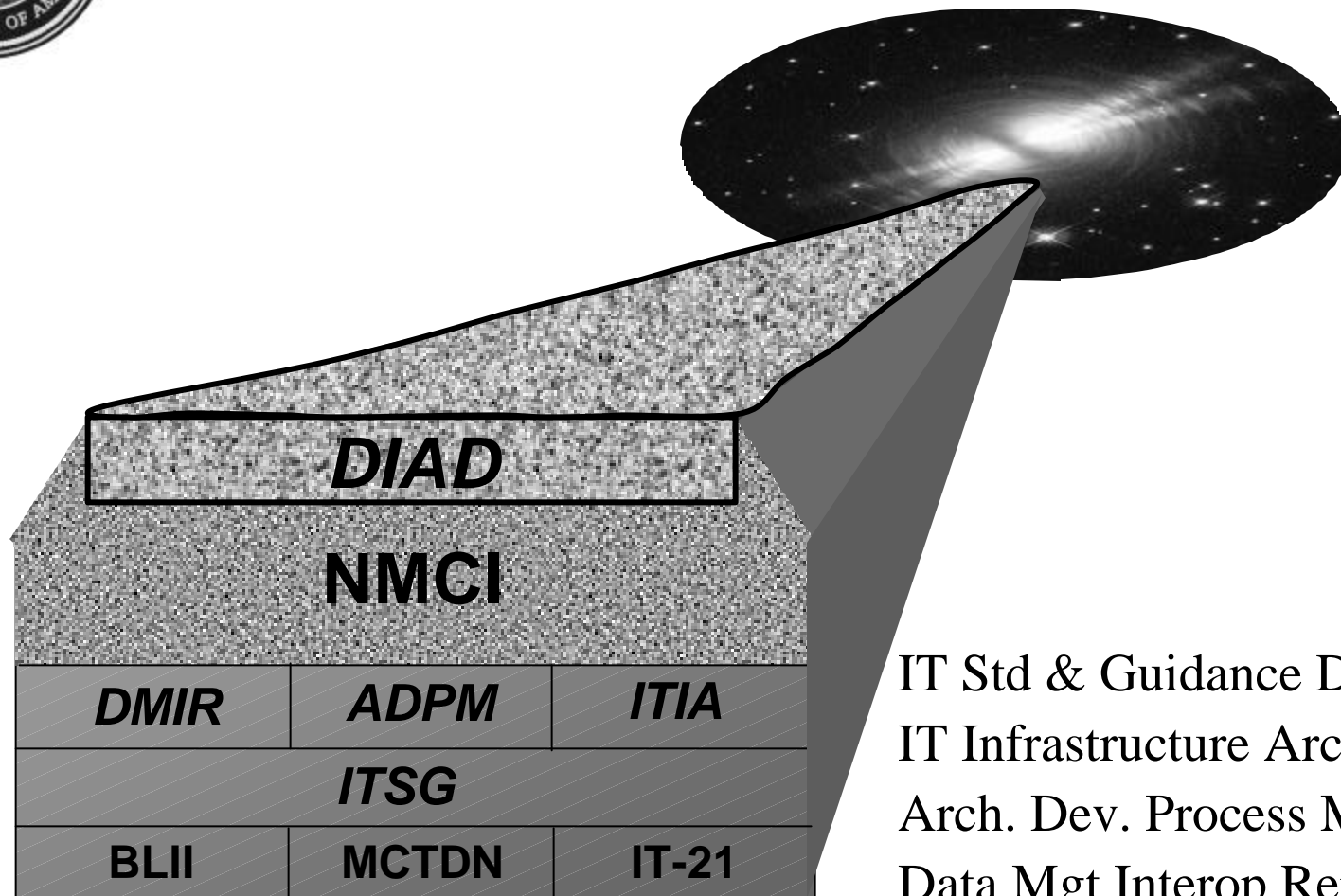
Clinger-Cohen	→	Capital Planning Architecture & Stds Process Improvement Personnel
10 USC 2223 Additional Duties	→	Budget Review Interoperability
PDD-63	→	Critical Infrastructure Protection Critical Infrastructure Assurance
Government Paperwork Reduction Act Government Information Security Reform Act	→	Information Security Information Assurance
Section 8121/8102 Appropriations Acts	→	Registration Certification/Confirmation
Section 508 Rehabilitation Act	→	Accessibility





# *DON Arch. and Stds. Tools*

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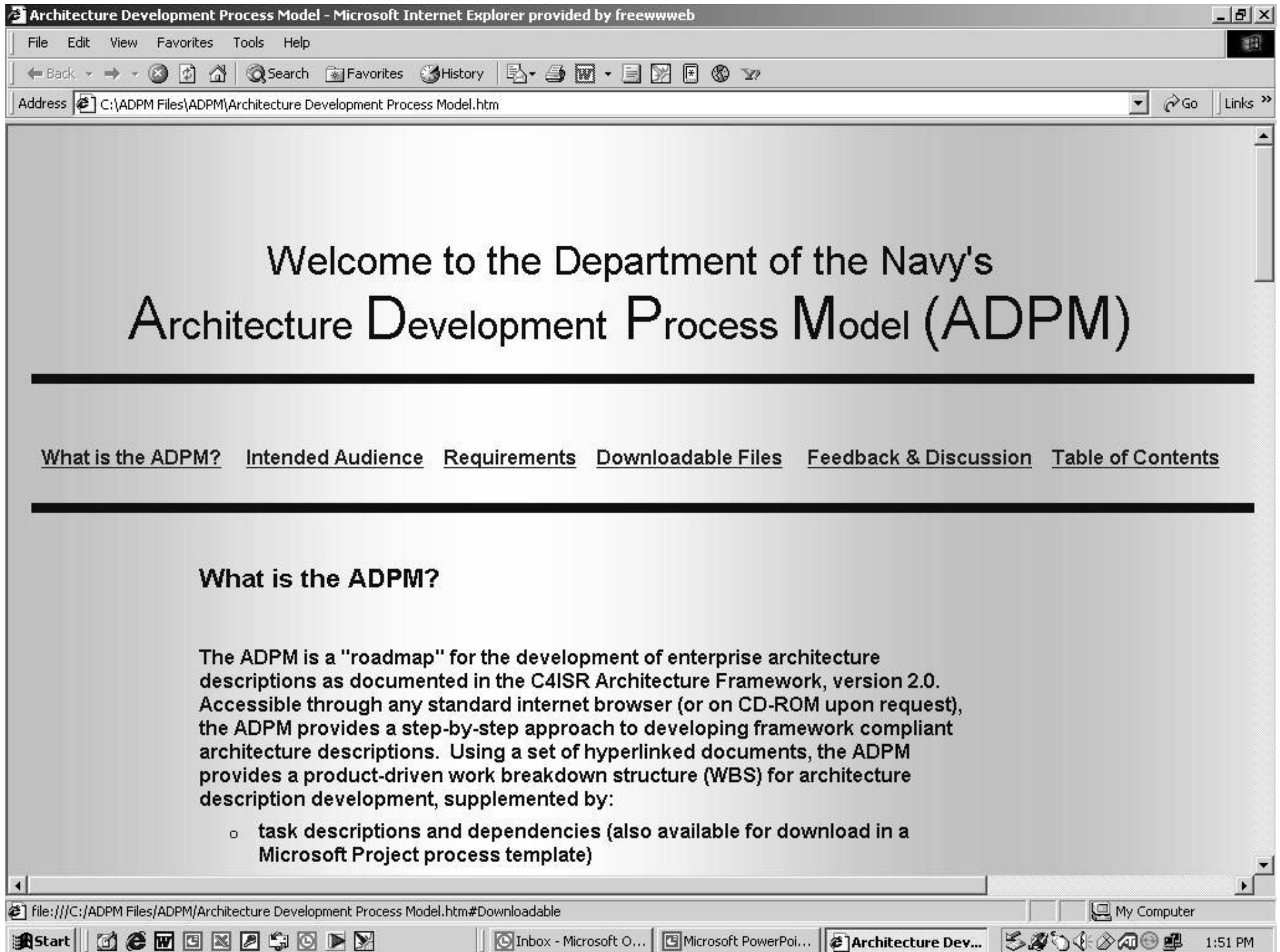
IT Std & Guidance Doc. (V1)  
IT Infrastructure Arch. (V1)  
Arch. Dev. Process Model (V1)  
Data Mgt Interop Repository  
DON Integrated Arch. Database  
(V5)

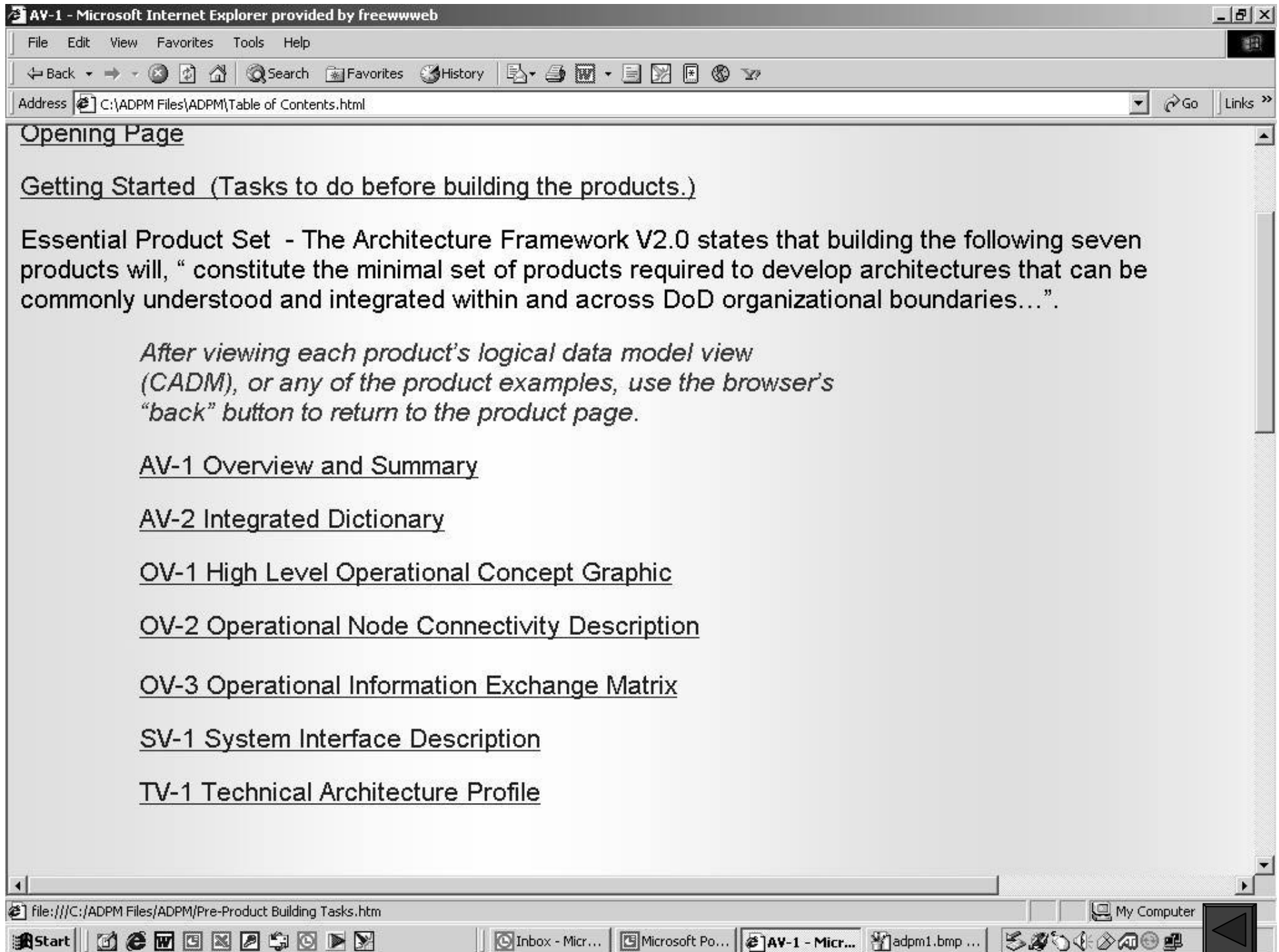


# ***DON CIO Tools***

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- **Architecture Development Process Model (ADPM)**
  - Architecture Framework Tool enabling Architecture Education, Process Development and Project Management
- **Data Management & Interoperability Repository (DMIR)**
  - Provide the capability to register systems and their associated database metadata in support of data integration and database consolidation efforts.
  - Testing in progress; operation version available late Summer 01
- **DON Integrated Architecture Database (DIAD)**
  - An Architecture Development Tools Suite based on an Architecture Framework Compliant Data Repository
  - In development with production version 1.0 in July 01







# DMIR System Registration

**Data Management & Interoperability Repository (DMIR) Main Screen**

Information Requirements  
DMIR Management  
Data Architecture & Standards  
Assessment Support

**System Registration Module - Microsoft Internet Explorer**

Address: <http://dmirprod/dmirprod/Register/menuRegister.cfm>

**Systems Registration Module**

MAIN MENU

PREVIOUS SYSTEMS  
SELECT A SYSTEM  
FIND A DATABASE  
REGISTER SITE  
LINK ORG TO SITE  
APPLICATION  
ADVANCED SEARCH  
REGISTER NEW  
LOGOFF

Welcome to the Systems Registration Module

**To Begin:**

Select a system to register. Use the [PREVIOUS SYSTEMS](#) or [SELECT A SYSTEM](#) options to find an existing system to continue registration, or use [REGISTER NEW](#) to add a new system to the database. DMIR contains system data extracted from the Y2K database so most systems will have an initial entry. Please check for the existing entry before trying to add a new system.

Each time you select a different system, the system name will be added to the list under [PREVIOUS SYSTEMS](#). This list will be available to select from as long as you remain on this screen. If you wish to carry this list to another option (selected from the graphic in the upper left corner), you must click the SAVE option under the list. This will save the list for duration of your current session. When you [LOGOFF](#), you will be offered the option to save the session list to your profile, making it available the next time you login to DMIR.

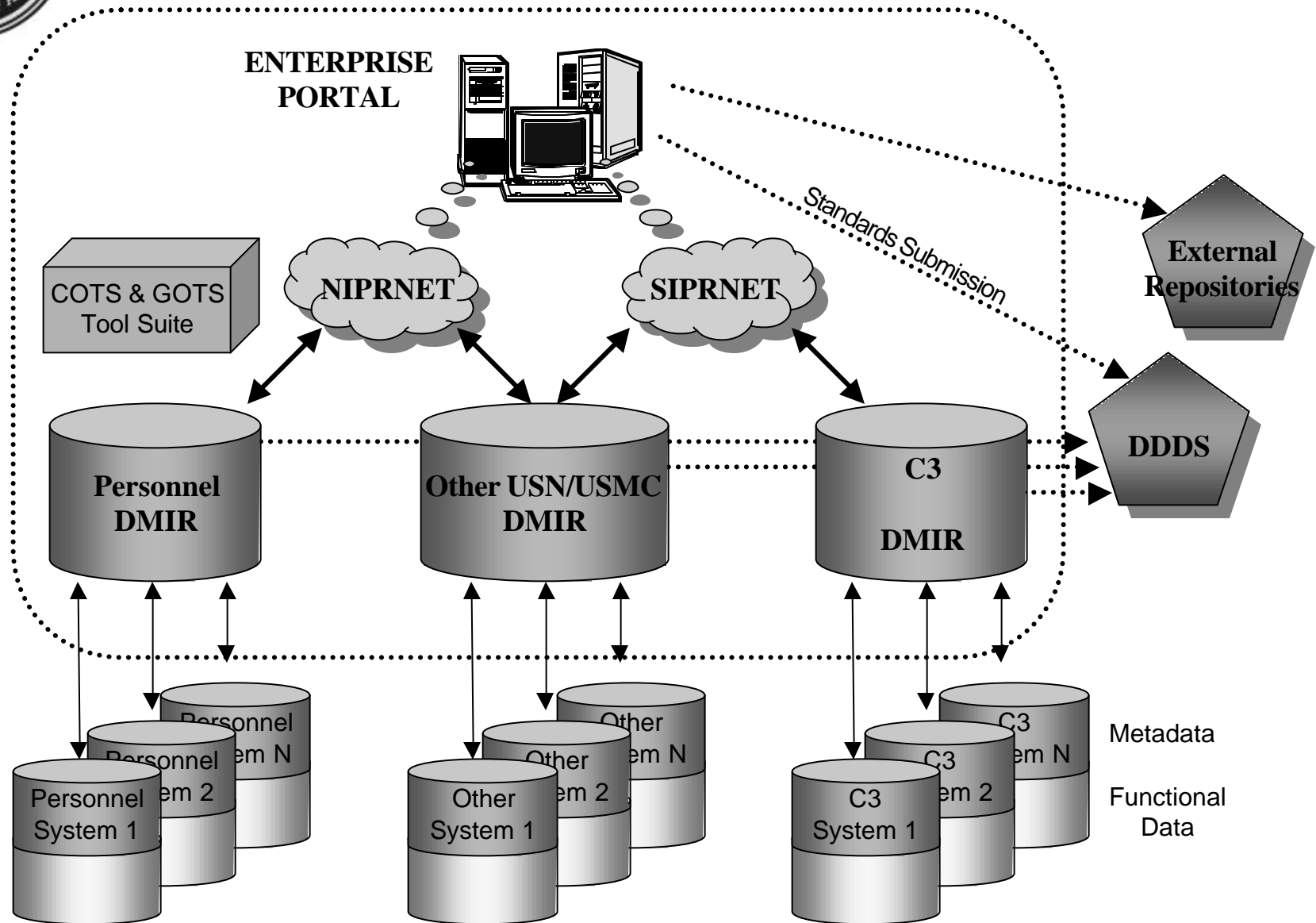
**Update System Data:**

Once you have selected or created your basic System entry, you will be offered options to provide additional data about the system using either options in the left panel or options under the System display. Please fill out all the relevant system data. In some cases you may be required to create new Organization or Point of Contact records. Please fill out the information as completely as possible. When you relate these new Organizations or POCs to your system, you will then be required to fill in additional information specific to your System.

**NOTE:** In ALL cases, you MUST SUBMIT any changes for them to be recorded in the database.



# *DMI Repository Implementation*



☐ New in Version 5.0**General Info**

About DIAD  
Overview  
Links  
Technical Support  
Help

**Architectures**

Select:

OCEANOGRAPHIC

Define New

**Development**

All-View  
Operational  
System  
Technical  
DIAD Navigator

**Verification**

Node Connectivity  
Inputs & Outputs

**Product Reports**

All-View  
Operational  
System  
Technical

**PICKLISTS**

Log Off DIAD

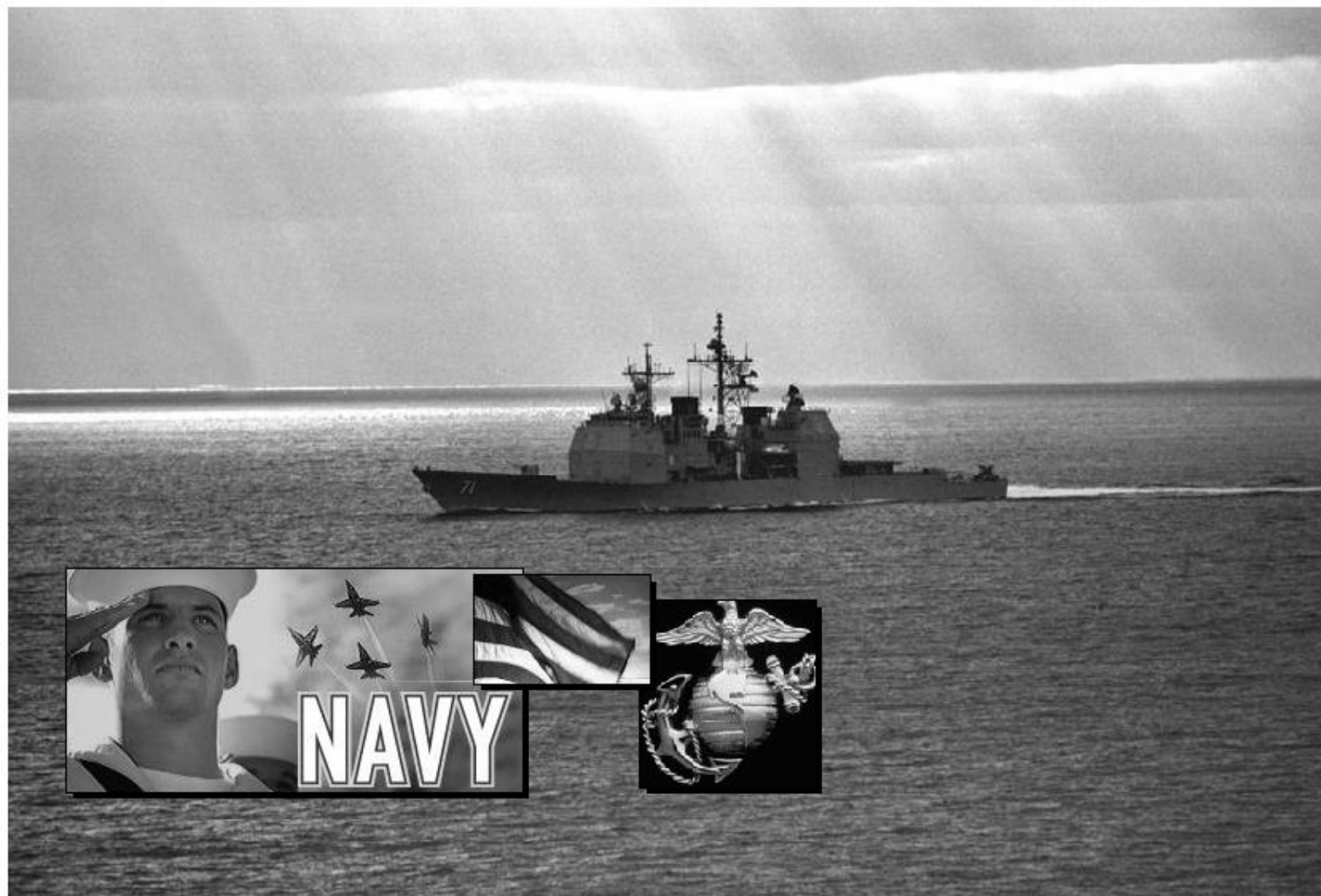
Quit DIAD

# DIAD

 Department of the Navy  
Integrated Architecture Database

OCEANOGRAPHIC

version 5.0

**ALPHA EDITION****WELCOME**

☐ New in Version 5.0**General Info**

About DIAD  
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**Architectures**

Select:

OCEANOGRAPHIC

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**Development**

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**PICKLISTS**

Log Off DIAD

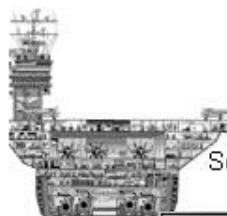
Quit DIAD

# DIAD

Department of the Navy  
Integrated Architecture Database

version 5.0  
**ALPHA EDITION**

OCEANOGRAPHIC

**SYSTEM ARCHITECTURE**

Select one of the following System Architecture products:

System Functions	Systems	Platforms & Facilities	Link Developer (Path-centric)
Functionlines	System Needlines	Plat/Fac Needlines	Link Developer (Device-centric)
Functionlines to Information Elements	System Interfaces	Plat/Fac Interfaces	Link Attributor
Functional IER Browser	System I/F Attributes	Plat/Fac I/F Attributes	Comm Protocol Stacking
Functional Allocation	Subsystem Allocation/ System Composition	Operational Nodes to Plat/Facs	
Activity Automation	System Technology Insertion	System Allocation to Plat/Facs	
Information Elements	System Migration Plan	Plat/Fac Migration Plan	





## Node Connectivity: OV-2

Select up to eight  
Organization Types:

REG CTR MAJOR

MET PROD CV

OCN PROD NOAA

ALLIED USN

Related tools:

View all Information Elements

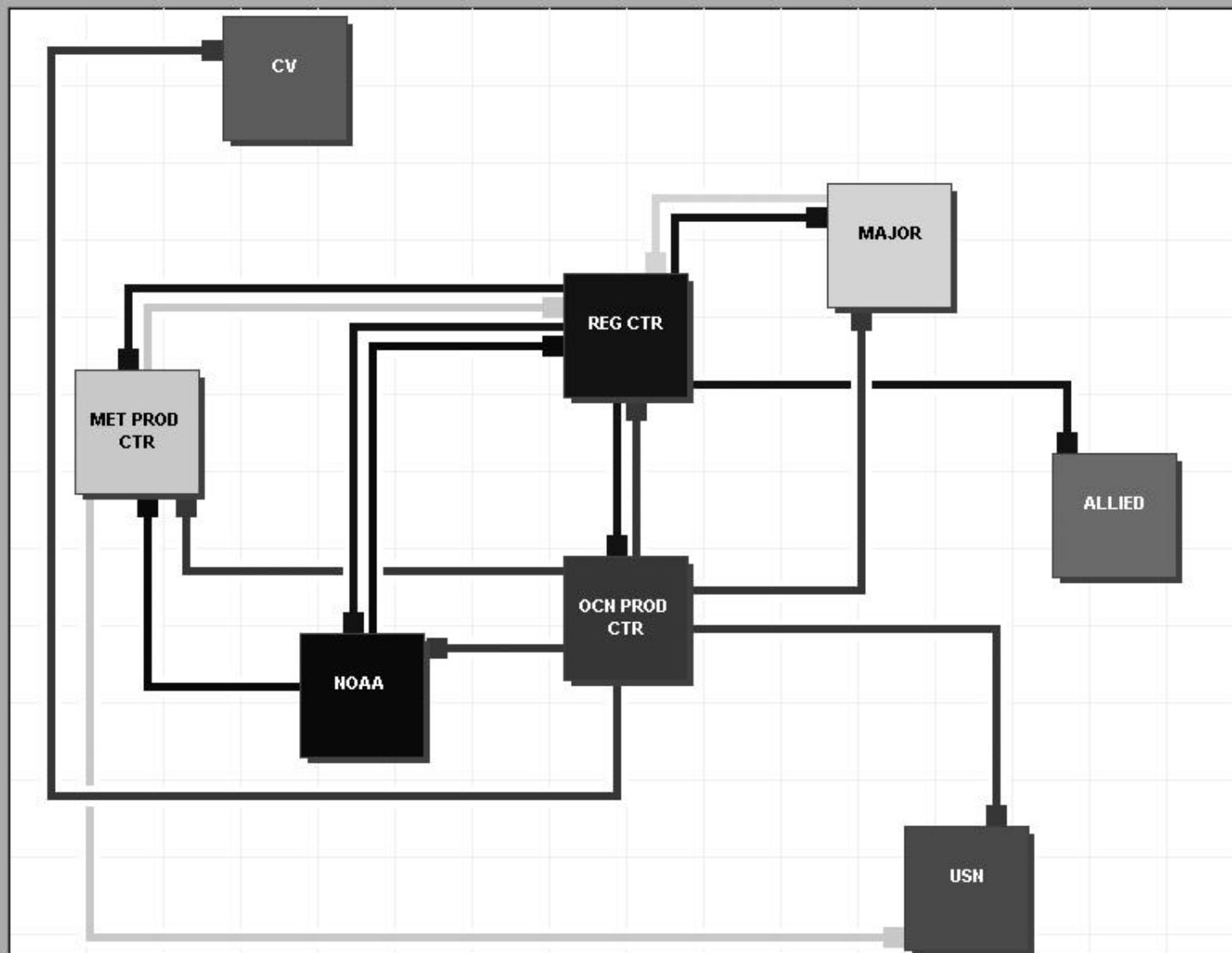
View all Organization Types

Attribute Information Elements

Create Needlines

Needlines to Information Elements

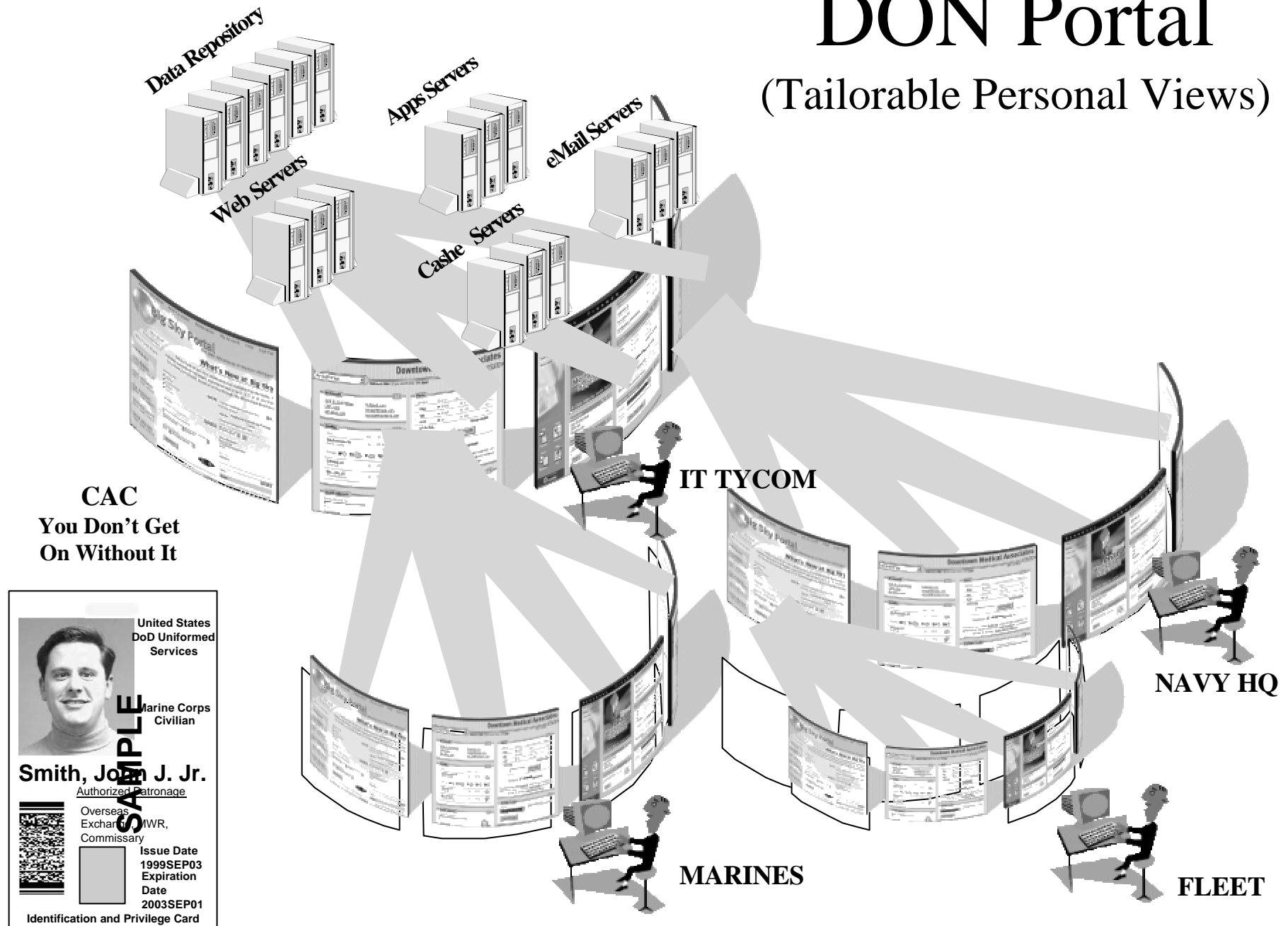
Create OV-2 Graphic



Double-click Node or Needline for details

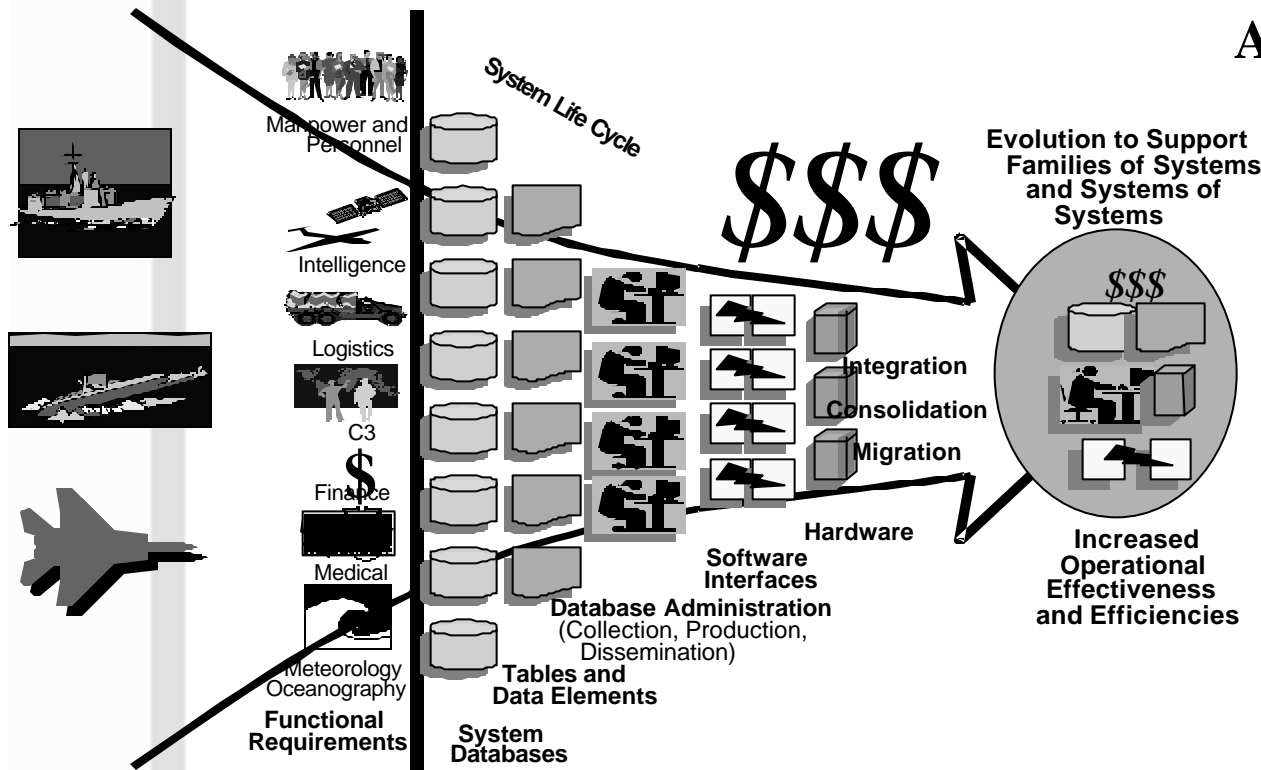
# DON Portal

(Tailorable Personal Views)





# Web Enabling the Navy



## ALNAV Message:

- VCNO Established N09W
- Web-enable 50 apps by 11/01
- Establish portal in 4 mo.
- Web-enable all Navy apps by 2004

*“AN XML CENTRIC ARCH.”*



# *Nomadic Future*





## *Nomadic C&C*

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- Nomadic Computing & Communications deals with the capability of simultaneously being:
  - physically mobile
  - having access to a set of computing, information, and communication services while moving, stopped at intermediate points, and at various destinations.
- It is more than just being mobile.
- It is more than just being wireless.



# *“On The Road”*

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■ Some of us carry a combination of “gadgets” such as:

- *Pagers*
- *Cell phones*
- *Palm-size PDAs*
- *Two way pagers*
- *Hand-held computing device*
- *Laptop computer*
- *Two-way radios*
- *A bag full of different data cables*
- *A collection of different batteries*
- *A collection of PCMCIA cards*
- *A collection of attachments and peripherals*
- *A bag full of different power cords and transformers*



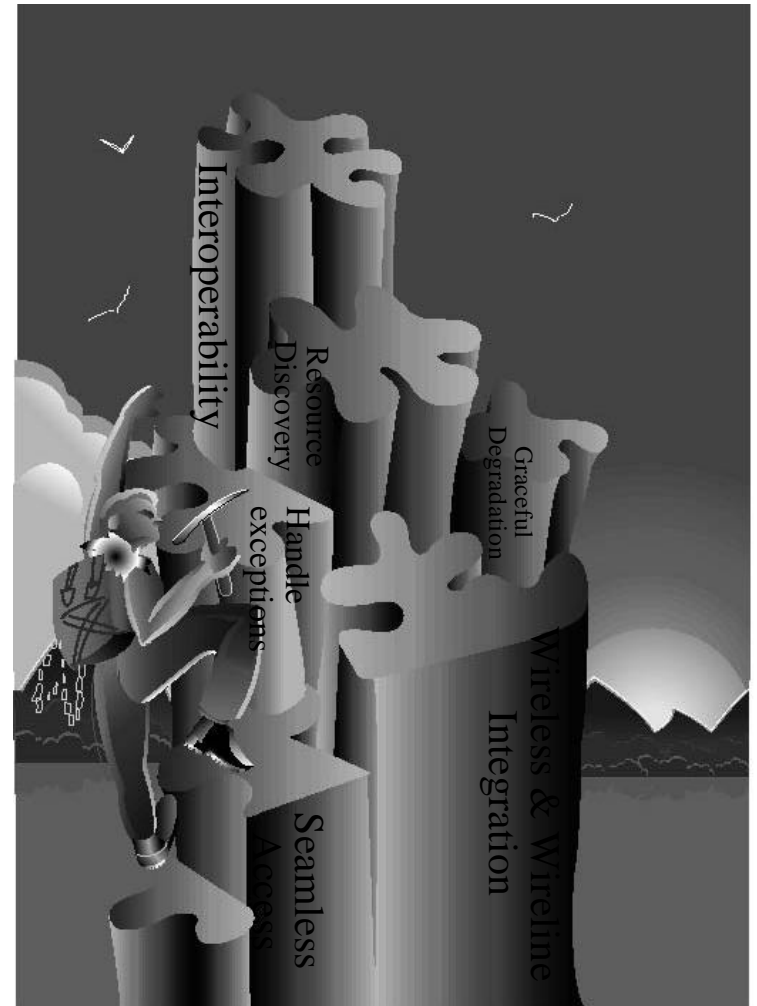
*.....Not an integrated/convenient/efficient/hassle-free environment*



# *Nomadic Problems*

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- Security
- Seamless interoperability between wireless and wireline networks
- Unpredictable user behavior
- Unpredictable network behavior
- Unpredictable computing behavior
- Graceful degradation
- Integrated access to remote services
- Bandwidth resolution & adaptivity
- Automatic sensing, searching, locating, tracking
- Applications awareness





# Summary

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- Interoperability is “critical” to DON, Joint, and Coalition operations
- Infrastructure wise...
  - *NMCI helps CONUS and OCONUS*
  - *IT-21 and MCTDN help deployed*
- Data interoperability is the “gemstone”
- Nomadic technologies throw a whole new set of interoperability issues on the table
- Architectures will allow us to better define & defend our reqts & budgets in an ABC environment





# *What's Interoperability Worth?*

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Extracts of speech from the Hon. Gordon England  
to DON SES Community on 5/30/01

*“My slogan is “One Team...One Fight” and that slogan captures our jointness across DoD and with our Coalition Forces to put forth the best possible Total Force to any adversary. We have to focus on this.”*

*“We are going to focus on Activity Based Costing across the enterprise”...because...”as far as I’m concerned, we don’t cut combat capability”...*

*Think “salesmanship”*  
*What’s Interoperability*  
*Worth ?*

